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Soy Protein

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The Soy Protein Story

Protein is an essential part of the human diet. Increasingly, soy protein is found in prepared foods. Health authorities lately have praised soy products for their content of genistein and other soy isoflavones. We urge caution with these products, as there is more to the soy story.

Soy, Soy Everywhere

Because soy protein is inexpensive, it is hidden in thousands of food products today. Formerly, the main soy products were tofu, tempeh, soy sauce and miso – traditional Japanese soy-based foods. However, today there are many others. Any food labeled vegetable protein, soy isolate or textured vegetable protein contains soy. Soy is commonly used in protein bars, protein powders, protein wafers and protein drinks.

Soy is used in Hamburger Helper and many other brands of imitation meat products. Soy is also sold today in the form of roasted soy nuts, pasta and chips made with soy flour. Soy is commonly used in infant formulas, meal replacements and diet foods. Even the hamburger you get in a restaurant may be half soy.

Soy is considered a complete protein. This means it contains the essential amino acids in a relatively good balance to support human health. However, it is not as high quality a protein as are eggs, for example. Also, there is more to protein than its amino acid content.

A Refined Food

Many soy protein products are highly processed. That is, many nutrients have been stripped away. This is a concern because today most people are already deficient in many vital nutrients. Eating more refined food will lead to more deficiencies.

Nutrient deficiencies today begin with food grown on depleted soils. A comparison of US Department of Agriculture statistics of the content of foods reveals that since 1914, the mineral and vitamin content of our staple foods have declined, often by thousands of percent. For example, in terms of nutrition, an apple today hardly resembles an apple of 100 years ago. Today's hybrid crops yield many more pounds of food per acre, however, since the minerals per acre remain constant, the mineral content of the food is much lower. Pesticides and herbicides, often required with the hybrids, damage soil microorganisms and can impair the uptake of nutrients into the plants. In addition, modern food processing results in the loss of 50% or more of the vitamins and minerals in food products.

Except for whole soy products such as tempeh and tofu, all soy protein products are refined. Often they are the by-products of soybean oil manufacture. The oil is removed and sold, and the product remaining is sold as soy protein. The oil is often removed with hexane or other chemicals. A residue can remain in the textured vegetable protein. Eating a product of this kind is like eating white bread that is devoid of minerals, vitamins, essential oils and other nutrients. If you are going to eat soy, eat whole, organically-grown soy products.

What Else Is Missing?

Compared to animal proteins, even unrefined, organically-grown soy contains very little zinc, and is low in some B-complex vitamins such as niacin. Other important nutrients found in meats but missing from soy include vitamin A, L-taurine, L-carnitine and alpha-lipoic acid.

What Else Is In Soy?

Copper: One problem with all soy products is their relatively high content of copper. Soy, along with liver, chocolate, wheat germ, nuts and seeds, contains some of the highest levels of copper found in foods. Liver and wheat germ contain more copper than soy, however the copper is balanced or buffered by a high content of zinc in these foods, but not in soy.

As a result, eating a lot of soy can contribute a significant amount of additional copper to the diet. This is beneficial for those with a copper deficiency, however, most people, especially vegetarians, are high in copper even if it is not revealed on a hair analysis, or other tests. Copper imbalance often contributes to their symptoms. Eating soy will aggravate these problems.

One can supplement a soy-based diet with zinc, however, many types of supplements are often not as well absorbed as food and are not a good substitute for proper foods.

The copper and zinc imbalance may be one reason allergies to soy products are becoming more common. Also, some babies do not do well on soy-based infant formulas. Many babies today are born high in copper and deficient in zinc.

Soy also contains **enzyme inhibitors**. These are destroyed by sprouting and by fermenting. The Japanese, who eat a lot of soy, always ferment their soy products.

Soy And Vegetarians

It is difficult enough today to obtain needed nutrients from our adulterated food supply. Vegetarians complicate the problem by limiting themselves to a very few types of protein foods. They are often dependent on soy foods for a large percentage of their protein intake. As a result, we see the most problems resulting from soy intake in vegetarians. On hair analyses, this shows up as abnormally low levels of zinc, phosphorus and sometimes iron. Zinc is needed for the immune system, for digestive enzyme production and for over 50 additional functions. Low phosphorus indicates a lack of protein in the diet, or deficient digestion, absorption or utilization of protein.

If you are vegetarian, be sure to include a variety of protein foods in your diet, including nuts, seeds, beans, wheat germ, whey protein, brewer's yeast and eggs, cheese and yogurt if you eat these. Do not depend just on soy, and avoid the *'junk'* refined soy proteins such as textured vegetable protein.

Conclusions

Organically-grown whole soy products can be a beneficial addition to any diet, however, for optimum nutrition, they are best balanced with other proteins. If you are copper-toxic, soy is not the best source of protein. Finally, reduce or avoid the refined soy protein found in so many prepared foods.

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